35 USC 112 Rejections

In the Advisory Action, the Examiner sustained the 112 rejections of claims 8 and 16. Applicant previously failed to correct these deficiencies due to clerical errors, and Applicant now proposes amending these claims to correct these errors. Specifically, Applicant has amended claim 8 to clarify that the previously submitted "first" loop was instead intended to be the mold surface, and therefore has removed the antecedent errors. Applicant also proposes amending claim 16 to depend from claim 14, as suggested by the Examiner. Applicant apologizes for the error in the previous response. No new matter is added with these amendments. These amendments are submitted to place these claims in condition for allowance.

35 USC 102 Rejection

The Examiner sustained the rejections of claims 2, 7-9, 16-25, and 33-36 under 35 USC 103(a) as being unpatentable over the Venus-Gusmer article in view of one or more secondary references. Applicant respectfully traverses this rejection and requests reconsideration in view of the following remarks.

As an initial matter, Applicant does not concede that Venus-Gusmer is a reference. The examiner pointed to Applicant's IDS as an admission of a publication date for Venus. Applicant submits the date provided in the IDS was a clerical error – that date was intended to refer to the newspaper article presented in the IDS on the line below Venus, and its inclusion was a clerical error (Applicant does not believe Venus was published in the Truth - a local newspaper, as indicated in error in the IDS; the second line refers to the Truth article and was published on the date erroneously ascribed to Venus, as indicated in the IDS). While Applicant is not aware when or if Venus was published, it came to the attention of Applicant well after the date of invention. Applicant further wishes to point out that Venus does not manufacture panels in the US (or China), but merely equipment which may be used to do so (the Examiner indicated that Venus is making panels with such a line). Applicant is unaware of Venus promoting or manufacturing equipment in the US similar to the equipment in China shown in the article.

Assuming arguendo that Venus is properly applied as a reference, Applicant respectfully submits it still fails to establish a prima facie rejection, as it fails to teach or suggest a continuous surface. Applicant respectfully submits that if one were to consider Venus as a reference, it does not teach or suggest the claimed limitations, and in fact teaches away from same. Although Venus shows a Mylar dispenser, the Mylar would need to be

dispensed and cut to approximately the length of the discrete mold, and would therefore teach discrete molds. If one were to keep the Mylar as a continuous sheet, the system show in Venus would be inoperative for the following reasons, as described with reference to the 11x17 sheet which begins with a heading "Venus Gusmer...".

First, the spacing between the discrete molds varies in the illustrated floor plan layout, and necessarily would vary in the process, as described in the article. As described in the paragraph numbered "2)", the molds are each driven by a DC motor, which allows the mold spacing to vary (and which is desirable in most prior art systems, as this permits inventory adjustment, line speed changes, molds to be pulled out, certain processing steps, etc.). Furthermore, as described in the paragraph numbered "4)", the mold is pulled under the chopper (labeled as the "dual head, high volume reciprocator") and in paragraph "5)", foam boards are applied, then at "6)", the molds are again moved through the machine and another layer of chopped laminate is applied over the core. As shown in the floor plan layout, it appears the mold is translated from the first line (at the top of the figure) to a parallel line below the first line to have the foam applied, then the mold is moved back to the first line to have the second layer of resin applied (see the arrows showing fore/aft and sideways movement of the molds). Such movement would certainly destroy a continuous sheet of Mylar between two adjacent molds. Furthermore, as illustrated in the photo at the lower left, there is no Mylar at the end of the mold shown, which further illustrates that the Mylar is applied in a discrete manner to the discrete molds, and not continuous as claimed.

Furthermore, it is evident in the floor plan, that the mold spacing varies. If the Mylar sheet were continuous, it would either tear as spacing increased, or fold as spacing decreased, likely creating wrinkles and other imperfections.

Applicant submits that these remarks overcome the rejection under 35 U.S.C. §103 and thus makes any determination of the publication date (if any) of the Venus-Gusmer moot. Applicant continues to submit that Examiner has not fulfilled the requirement, as stated in MPEP 2128, as discussed in the Response dated April 30, 2004.

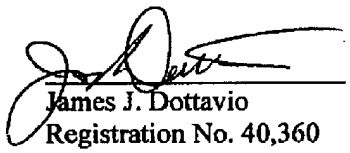
Conclusion

In view of the above amendments and remarks, Applicant submits that the rejections have been overcome and the claims are in condition for allowance. Applicant requests entry of the above amendment and consideration of the remaining claims.

If any questions should arise with respect to the above Remarks, or if the Examiner has any comments or suggestions to place the claims in better condition for allowance, it is requested that the Examiner contact Applicant's attorney at the number listed below.

If any fees are due in connection with the filing of this Response, including any fee for a required extension of time under 37 CFR 1.136(a) for which Applicant hereby petitions, please charge all necessary fees to Deposit Account No. 50-0568.

Respectfully submitted,



James J. Dottavio
Registration No. 40,360

Date: OCT 6, 2004

Owens Corning
Patent Dept., Bldg. 11
2790 Columbus Road
Granville, Ohio 43023
740-321-7167

VERSION WITH MARKINGS TO SHOW CHANGES MADE

1. (canceled)

2. (previously presented) The apparatus of claim 33, wherein said applicator mechanism comprises a chopper for applying fibrous reinforcement.

3. (currently amended) An apparatus for manufacturing fiber-reinforced sheet, comprising:
a continuous mold surface being arranged in a longitudinal manner onto which the fiber-reinforced sheet may be formed [; The apparatus of claim 33, wherein] said continuous mold surface [is] being defined by a continuous loop of individual links[.];
a spray mechanism to spray a first outer coat of material onto said mold surface;
at least one dispensing mechanism to dispense resin over said first outer coat;
at least one applicator mechanism to apply fiber strands over said first outer coat; and
a roller mechanism for rolling said fiber strands and said resin.

4. (original) The apparatus of claim 3, wherein said links are elongate in width and connect to adjacent links along their front and rear edges.

5. (original) The apparatus of claim 4, wherein said apparatus further comprises a rail member positioned below said links defining a reference surface, and said links have a lower foot portion which registers with said links to define a horizontal plane, on said upper movable surface.

6. (original) The apparatus of claim 5, wherein said foot portion has a wear bar comprised of a low friction surface which slides relative to said reference surface.

7. (previously presented) The apparatus of claim 35, wherein said drawing mechanism is a pressure application mechanism.

8. (currently amended) The apparatus of claim 7, wherein said pressure mechanism is comprised of a [second] continuous loop of individual links[,] positioned in a spaced apart position from said [first continuous loop] upper movable surface.

9. (previously presented) The apparatus of claim 34, wherein said sheet is comprised of a roll of sheet material of high tensile strength.

10. (currently amended) An apparatus for manufacturing fiber-reinforced sheet, comprising:

a continuous mold surface being arranged in a longitudinal manner onto which the fiber-reinforced sheet may be formed, said continuous mold surface comprising an upper movable surface being arranged in a longitudinal manner and a feed mechanism to continuously feed sheet onto said upper movable surface and [The apparatus of claim 9, further comprising] a take up roller to roll up said sheet material, said sheet being comprised of a roll of sheet material of high tensile strength;

a spray mechanism to spray a first outer coat of material onto said mold surface;

at least one dispensing mechanism to dispense resin over said first outer coat;

at least one applicator mechanism to apply fiber strands over said first outer coat; and

a roller mechanism for rolling said fiber strands and said resin.

11. (original) The apparatus of claim 10, further comprising a roller table adjacent said take up roller, whereby finished fiberglass-reinforced sheet may be continuously fed onto said roller table.

12. (original) The apparatus of claim 11, wherein said reinforcement applicator mechanism comprises a chopper for applying fibrous reinforcement.

13. (canceled)

14. (currently amended) An apparatus for manufacturing fiber-reinforced sheet, comprising:

a continuous mold surface being arranged in a longitudinal manner, onto which the fiber-reinforced sheet may be formed [The apparatus of claim 36, wherein] said mold surface [is] being movable in a longitudinal direction;

a spray mechanism to spray a first outer coat of material onto said mold surface;

at least one dispensing mechanism to dispense resin over said first outer coat;

at least one applicator mechanism to apply fiber strands over said first outer coat; and

a roller mechanism for rolling said fiber strands and said resin, said roller mechanism comprising an automatic roller mechanism which performs transverse rolling patterns across said mold surface, [and] said automatic roller mechanism [is] being comprised of at least one roller which is driven in a continuous loop in a direction transverse to said longitudinal direction.

15. (currently amended) The apparatus of claim 14[[15]], wherein said roller mechanism is profiled to move said at least one roller in a direction, such that the roller has a transverse velocity component and a longitudinal velocity component, whereby the longitudinal velocity component is equal to a longitudinal velocity of the moving mold surface.

16. (currently amended) The apparatus of claim [16] 14, wherein said roller mechanism is comprised of a driven chain loop guided around a chain guide, and said roller is attached to and driven by chain loop.

17. (original) The apparatus of claim 17, wherein said chain guide is movable to various angles to vary the angle of the chain guide relative to the longitudinal direction.

18. (original) The apparatus of claim 17, wherein a plane of said chain guide is tipped relative to a plane of said mold surface.

19. (original) The apparatus of claim 19, further comprising a plurality of rollers attached to and driven by said chain loop.

20. (original) The apparatus of claim 16, wherein said movable mold surface is defined by a roll of film together with a feed mechanism to feed said film at a first end, and a take up roller at a second end.

21. (original) The apparatus of claim 21, further comprising a movable support surface positioned beneath said movable mold surface.

22. (original) The apparatus of claim 22, wherein said movable mold surface and said movable support surface are moved together at substantially the same speeds.

23. (original) The apparatus of claim 23, wherein said movable support surface is defined by a continuous loop of individual links.

24. (original) The apparatus of claim 24, wherein said apparatus further comprises a rail member positioned below said links defining a reference surface, and said links have a lower foot portion which registers with said links to define a horizontal plane.

25. (canceled)
26. (canceled)
27. (canceled)
28. (canceled)
29. (canceled)
30. (canceled)
31. (canceled)

33. (previously presented) An apparatus for manufacturing fiber-reinforced sheet, comprising:
a continuous mold surface being arranged in a longitudinal manner, onto which the fiber-reinforced sheet may be formed;
a spray mechanism to spray a first outer coat of material onto said mold surface;
at least one dispensing mechanism to dispense resin over said first outer coat;
at least one applicator mechanism to apply fiber strands over said first outer coat; and
a roller mechanism for rolling said fiber strands and said resin.

34. (previously presented) An apparatus according to claim 33, wherein said continuous mold surface comprises:
an upper movable surface being arranged in a longitudinal manner; and
a feed mechanism to continuously feed sheet onto said upper movable surface.

35. (previously presented) An apparatus according to claim 34, further comprising:
a loading area whereby sheet panels may be positioned over said rolled fibers and

resin; and

a mechanism to draw said resin into said sheet panels to form a rigid composite material.

36. (previously presented) An apparatus according to claim 33, wherein said roller mechanism comprises an automatic roller mechanism which performs transverse rolling patterns across said mold surface.